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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,872	06/26/2003	John K. Walton	EMC2-143PUS	5270

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RICHARD M. SHARKANSKY
PO BOX 557
MASHPEE, MA 02649

EXAMINER	
CHEN, ALAN S	

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/606,872	WALTON ET AL.	
	Examiner	Art Unit	
	Alan S. Chen	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13 and 17-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-11* is/are allowed.

6)☒ Claim(s) *12,13 and 17-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/26/2006 has been entered.

Response to Arguments

2. Applicant's arguments, filed 04/26/2006, with respect to claims 1-6 and 9 have been fully considered and are persuasive. The 35 U.S.C. §103 rejection of 1-6 and 9 has been withdrawn.

3. Applicant's arguments with respect to claims 12, 13 and 17-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

4. Claim 18 is objected to because of the following informalities:

- the last limitation of the claim should have the word "of" inserted after terms "electrical coupling".
- Lines 3 and 8, "broads" should be "boards".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 12,13 and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat. No. 6,484,222 to Olson et al. (Olson).

7. Per Claim 12, Olson discloses a system *(Fig. 2)* comprising: a backplane having a plurality of conductors *(Column 4, lines 22-43 disclose elements in Fig. 2 being resident on a motherboard)*; a plurality of printed circuit boards plugged into the backplane *(Fig. 2, elements 60-90 are expansion slots which PCBs reside)*, each one of the printed circuit boards having a plurality of electrical contacts *(Fig. 2, elements 60-90 each expansion slot is shown at least two contacts, one for a present signal and another for enabling the 66MHz bus speed)*, each one of the electrical contacts providing an indication of a predetermined operating incapability *(PCBs are manufactured to operate at one particular frequency)* of an electrical component on such one of the printed circuit boards *(Fig. 2, elements each expansion slot indicates whether there is a printed circuit board inserted, PRESENT, and whether the board can support 66MHz or not. Column 2, lines 34-45, "...If a peripheral device inserted in a PCI slot is incapable of 66MHz operation, the 66MHz ENABLE pin on the peripheral device connects to ground to pull*

the 66MHz ENABLE line low..."), each one of such electrical contacts of the plurality of printed circuit boards being electrically connected together through a corresponding one of the plurality of conductors of the backplane *(Fig. 2, element 100, the electrical contacts for the PRESENT contact and 66MHz enable contact on all the PCBs, elements 60-90, are connected by the EXPANSION SLOT CONTROLLER, element 100; traces on the backplane connect each PCB signal together at the EXPANSION SLOT CONTROLLER)*; circuitry connected to the plurality of conductors for converting the operating incapability indications provided by the plurality of printed circuit boards into logic signals for the plurality of printed circuit boards (*EXPANSION SLOT CONTROLLER subsequently determines based on all the signal lines/contacts wired to it, the speed that the PCI bus, element 85, should operate at; Table I shows how the EXPANSION SLOT CONTROLLER determines the desired clock frequency; The EXPANSION SLOT CONTROLLER then sends the PCI RESET and 66 MHz ENABLE signals to the PCI Bridge and ultimately for each of the PCBs, Fig. 2, element 75*).

8. Per Claim 13, Olson discloses Claim 12, Olson further discloses the operating incapability is operating speed *(Fig. 2, 66 MHz enable signal corresponds directly to operating speed of PCI bus).*

9. Per Claims 19-21, Claims 12 and 13 are substantially similar to Claims 19-21 and therefore, the rejections are applied accordingly. The method in how Fig. 2 of Olson operates is laid out in detail in the disclosure of Olson. Operating speed and protocol are equivalent variants. Speed is strictly frequency. Protocol is PCI-66MHz or PCI-33MHz.

10. Claims 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat. Pub. No. 2002/0099875 to Locklear et al. (Locklear).

11. Per Claim 17, Locklear disclose method for operating a system *(Fig. 4 shows the method that is applied to Figs. 1 and 2, the system)*, comprising: providing a backplane system *(Fig. 2, slots shown all intrinsically reside on a backplane)* comprising: a plurality of printed circuit boards *(Fig. 2, each slot holds a PCB)* each one having an electrical component thereon *(PCBs have electrical component, e.g., logic that performs some functionality; Paragraph 24 gives some examples such as RAID controllers, video adapters, graphic accelerators, etc)*; and a backplane having plugged therein the plurality of printed circuit boards for producing a signal indicative of an operating incompatibility of the electrical components *(Fig. 2, elements 116x are signals that indicate an operating incompatibility. For instance, Fig. 2, element 116B flashes an amber signal color to indicate the PCB, e.g., 66MHz, is not optimal for the slot, e.g., 100MHz; Paragraph 32)*; interrupting start-up of the system upon detection of such operating incompatibility *(Fig. 4 shows the start up of a backplane server system; All this happens before the server is running to perform its assigned server task, such as managing a website, etc. Therefore, it occurs during "start-up"; At step 420, it is determined that a particular card is not optimally connected, e.g., operating incompatibility. The card is then removed and placed in a better expansion slot that accommodates the operating speed of the card. Then the server is power down and powered up again)*; and wherein the operating incompatibility is operating protocol

(Paragraph 23, PCI has different operating speed protocols, e.g., 33MHz, 66Mhz and 133MHz).

12. Per Claim 18, Locklear discloses the limitations of Claim 17, further disclosing plugging an additional printed circuit board having an electrical component thereon into the provided backplane *(Fig. 2, another PCB is plugged into empty slot 116D)*, the electrical component on such additional printed circuit board being incompatible with the speed of the electrical components on the plurality of printed circuit boards *(Fig. 3, element 302; the PCB is operates at 66MHz, however it is plugged into a 100 MHz slot)*; an electrical circuit *(Fig. 1, element 112, the improvement engine)* for electrically inhibiting the electrical coupling the electrical component on the additional printed circuit board from the electrical components of the plurality of printed circuit boards *(Fig. 4 shows that the PCBs are not allowed to communicate until optimization is completed. Thus, the improvement engine effectively inhibits communication of the PCBs with each until optimization is complete; note, electrical coupling is equated to electrical communication, there is nothing in the claims language that precludes this).*

Allowable Subject Matter

13. Claims 10 and 11 are allowed based on previously stated reasons for allowance in the action submitted 10/21/2005.

14. Claims 1-9 are allowed.

The following is the statement of reasons for the indication of allowable subject matter: The prior art disclosed by the applicant and cited by the Examiner fail to teach or suggest, alone or in combination, ***all*** the limitations of the independent claim(s)

(claims 1,3 and 5), particularly a system comprising first plurality of printed circuit board plugged into a backplane, each one of the first plurality of printed circuit boards having electrical contacts that provide an indication of an operating incapability of an electrical component on each printed circuit board, each electrical contacts being electrically *connected together* through a corresponding one of a plurality of conductors of the backplane. A second plurality of printed circuit boards also plugged into the backplane, *each* having a decoder to decode the signals sent from the plurality of conductors by the first plurality of printed circuit boards, in order to select an operating characteristic compatible with the first plurality of printed circuit boards.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patents and patent related publications are cited in the Notice of References Cited (Form PTO-892) attached to this action to further show the state of the art with respect to detection and adjustment of speed/protocol incompatibilities between PCBs.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adam E. Chan
6/29/06

ASC
06/29/2006